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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,804	11/26/2003	Joseph Patino	CE1208IEM	8199
Larry G. Brown Motorola, Inc. Law Department 8000 West Sunrise Boulevard Fort Lauderdale, FL 33322			EXAMINER FANTU, YALKEW	
			ART UNIT 2838	PAPER NUMBER
			MAIL DATE 06/27/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/722,804

**Applicant(s)**

PATINO ET AL.

**Examiner**

YALKEW FANTU

**Art Unit**

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al. (US 4,061,956)

With respect to claim 1, Brown et al. (hereinafter Brown) discloses a method of charging a battery (fig. 1), comprising the steps of receiving an input power supply signal (fig. 1, 252) that is used to charge a battery 32; monitoring a voltage level 66 of the input power supply signal 252 to determine when the input power supply signal reaches first and second predetermined thresholds (col. 8, lines 61-64; threshold value of 25 and 28.5); and in response to said monitoring step, selectively controlling a charging switch 12 and 44 that controls the flow of the input power supply signal 252 to the battery 32, wherein said controlling step 42 and 44 comprises activating the switch 12 when the voltage level of the input power supply signal 66 reaches the first predetermined threshold, (which is 25 volts, in this case see col. 8, lines 63) and deactivating the switch when the voltage level of the input power supply signal reaches the second predetermined threshold (disable when the voltage exceeds 29 volts see col. 8, lines 62-65), but does not expressly disclose activating switch when the voltage level of the input power supply signal increases to the first predetermined threshold, and deactivating the switch when the voltage level decreases to reach the second

predetermined threshold. But, it would have been obvious to one of ordinary skill in the art to activating the switch 12 when the voltage level of the input power supply signal 66 increases to reach the first predetermined threshold, and deactivating the switch when the voltage level of the input power supply signal decreases to reach the second predetermined threshold setting the controlling program in such a way to activate switching when voltage level of the input power supply increase o reach predetermined threshold, and deactivating switch when input power supply signal decrease to reach second predetermined threshold value. A control circuit can also include relay control circuit that functions to control various relays so that it works as described above (see col. 9, lines 5-10). The reason is to prevent the charging element for being overcharged or completely depleted.

With respect to claim 2, Brown further discloses a capacitor (contained in the boost circuit fig. 1, 14); (the capacitor, as claimed, does not maintain voltage of the input power), the voltage level of the input power supply signal (see fig. 1, voltage sensor 66) to indicate that the electronic device is being charged.

With respect to claim 4, Brown discloses synchronizing with said controlling of the charging switch (fig. 1, 12) the control of the second switch (fig. 1, 44) that regulates current flow to a backlighting circuit (84) such that the second switch to the backlighting circuit is activated when the charging switch is activated and deactivated when the charging switch is deactivated (activate and deactivate when the switch is on and off).

Regarding claim 8, Brown discloses receiving an input power supply signal (fig. 1, 18 and 80) in an electronic device having a capacitor (fig. 1, 14) with a value high

enough to maintain a voltage level of the input power supply signal (col. 8, lines 54-55) to indicate that the electronic device is being charged to prevent disabling of a charging sequence for the battery 32, monitoring the voltage level of the input power supply signal to determine when the voltage level of the input power supply signal reaches first and second predetermined thresholds, wherein the magnitude of the second predetermined threshold is lower than the magnitude of the first predetermined threshold (col. 8, lines 55-64) ; (selectively controlling a charging switch (fig.1, 44) that controls the flow of the input power supply signal to the battery 32, wherein said controlling step comprises activating the switch when the voltage level of the input power supply signal reaches the first predetermined threshold and deactivating the switch when the voltage level of the input power supply signal reaches the second predetermined threshold (col. 8, lines 62-64) .

With respect to claim 9, Brown et al discloses the claimed charging system (Fig. 1) for charging a battery (Fig.1 number 26) comprising an input for receiving an input power (Fig. 1 number 10), a charging switch (Fig. 1 number 12 and 44) and a controller (Fig. 1 'Control Circuit I' and Col 3 line 7). Control charging switch (Fig. 1 number 44) activate charging switch (Fig. 1 number 12) when input power (Fig. 1 number 16) reaches predetermined threshold. The voltage control circuit of Fig. 1 number 40 receives the voltage signals, which reflects state of charge of the battery. (Col.3 line 65-68 and 4, line 1-5) it is well known to those skilled in the art that the state of charge of a battery indicates the threshold voltage difference for activating and deactivating the charging switches.

With respect to claim 10, Brown discloses, further, comprising a capacitor (that maintains a voltage level (fig. 1, 66) of the input power supply signal (fig. 1, 66) that said controller monitors to determine that said battery is being charged (col. 4, lines 5-10)

With respect to claim 11, Brown discloses a circuit (fig. 1, control circuit I) and a second switch (fig. 1, 44) that regulates current to flow to said circuit, said controller is further programmed (col. 3, lines 57-63) to synchronizing with controlling of the charging switch (fig. 1, 12) the control of the second switch (fig. 1, 44) that regulates current flow to a backlighting circuit (84) such that the second switch to the backlighting circuit is activated when the charging switch is activated and deactivated when the charging switch is deactivated (activate and deactivate when the switch is on and off).

With respect to claim 12, backlighting circuit (Fig. 1. Number 84 and Col.8 line 65 to Col. 9 line 40)

With respect to claim 14 rectifier (Fig .1 number 14), boost circuit includes a rectifier.

With respect to claim 15 the magnitude of the predetermined threshold (Col. 8, lines 54-64).

Regarding method claims 3, 5-7 the method steps are met by the operation of Brown et al. as applied to claims 1, 2, 4, 8-12, 14 and 15.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al (US 4061956) in view of Patino et al.(US 6972542).

With respect to claim 13, Brown et al. teaches the invention set forth above and further teaches battery charging system (Fig. 1). Brown lacks the wireless charging

system. Patino et al teaches that it is well known to use a wireless battery to the charging system. It would have been obvious to one ordinary skill in the art at the time the invention was made to modify the charging system of Brown et al with that of Patino et al for the purpose of having a charging system with wireless capability for easy and portable use.

### ***Response to Arguments***

Applicant's arguments filed on 03/31/2008 have been fully considered but they are not persuasive to overcome the combined references of Brown et al. and Patino et al.

With regard to applicant argument that "... Brown expressly describes shutting off a charging switch when the voltage gets too high... and to activate this switch at this threshold directly contradicts the overcharging protection..." But, as indicated above, Control charging switch (Fig. 1 number 44) activate charging switch (Fig. 1 number 12) when input power (Fig. 1 number 16) reaches predetermined threshold. Contrary to applicant argument, unless current is regulated this way, charging current to the required threshold level becomes unattainable. The control controls the flow of the input power supply signal to the battery 32, wherein said controlling step comprises activating the switch when the voltage level of the input power supply signal reaches the first predetermined threshold and deactivating the switch when the voltage level of the input power supply signal reaches the second predetermined threshold (col. 8, lines 62-64). A control circuit can also include relay control circuit that functions to control various relays so that it also works as described above (see col. 9, lines 5-10). Contrary to

applicant argument, "... Brown calls for activating a charging switch when the voltage level drops back below a safe, second threshold... would prevent charging current from reaching...." Brown discloses that the charge circuit charge the battery in accordance with a pre selected charging program related to the state of charge of the battery, i.e. the controller differentiate when it is below a safe threshold level. Brown's safety circuit adapted to sense unsafe battery and battery charger parameters and causes the control circuit to generate a switching signal to cause the switch means to be non-conductive upon the occurrence thereof (see col. 8, lines 53-64 and abstract).

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YALKEW FANTU whose telephone number is (571)272-8928. The examiner can normally be reached on M - F: 7- 4.



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Akm E. Ullah can be reached on 571-272-2361. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

6/23/2008

/Gary L. Laxton/  
Primary Examiner  
Art Unit 2838

**Application Number****Application/Control No.**

10/722,804

**Examiner**

YALKEW FANTU

**Applicant(s)/Patent under  
Reexamination**

PATINO ET AL.

**Art Unit**

2838